California Science

Life Sciences

Life in the Bay

by Lisa Oram

Vocabulary	Extended Vocabulary
food chain	endangered
marsh	habitat
shelter	tides
	wetland

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ISBN: 0-328-23486-9

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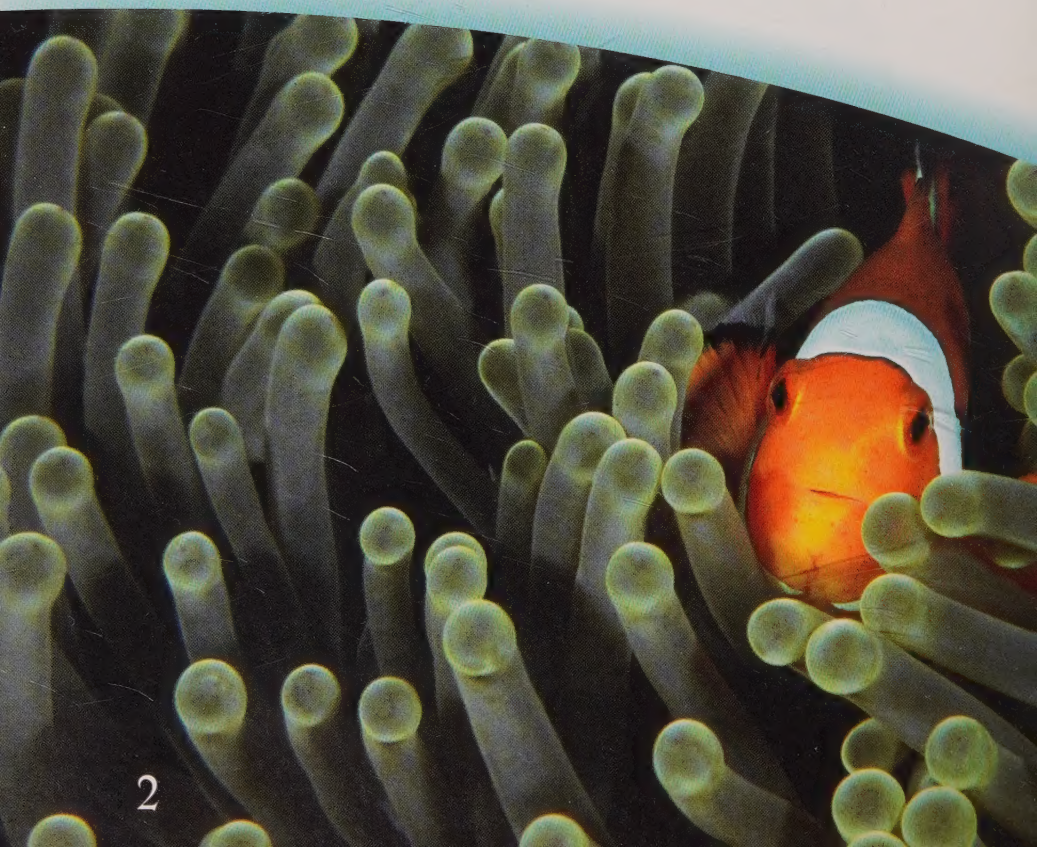
What You Already Know

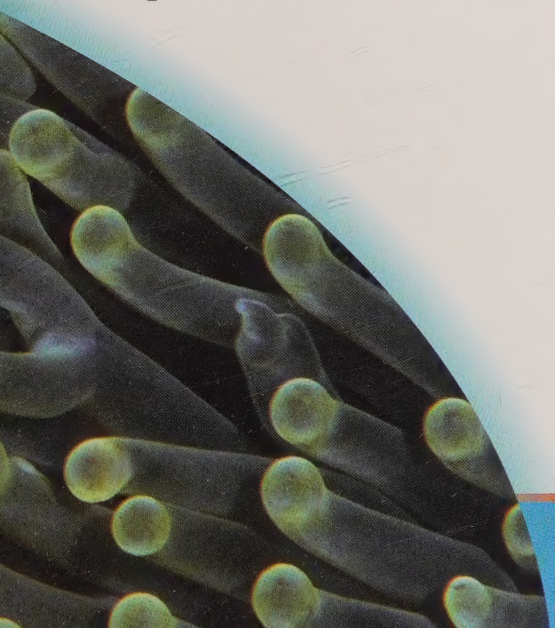
Animals and plants need each other to live. Animals use plants and other animals for shelter. Some animals use plants to make nests. Some animals live on other animals. Animals use plants or other animals for food. Animals help plants spread their seeds.



Plants and animals depend on each other through food chains. Plants take in light from the Sun to grow. Animals eat plants and other animals. Animals that eat animals have sharp, pointed teeth. Animals that eat plants have flat teeth.

A caterpillar eats a leaf. A bird eats the caterpillar. The leaf, the caterpillar, and the bird are part of a food chain. There are different food chains in deserts and marshes.

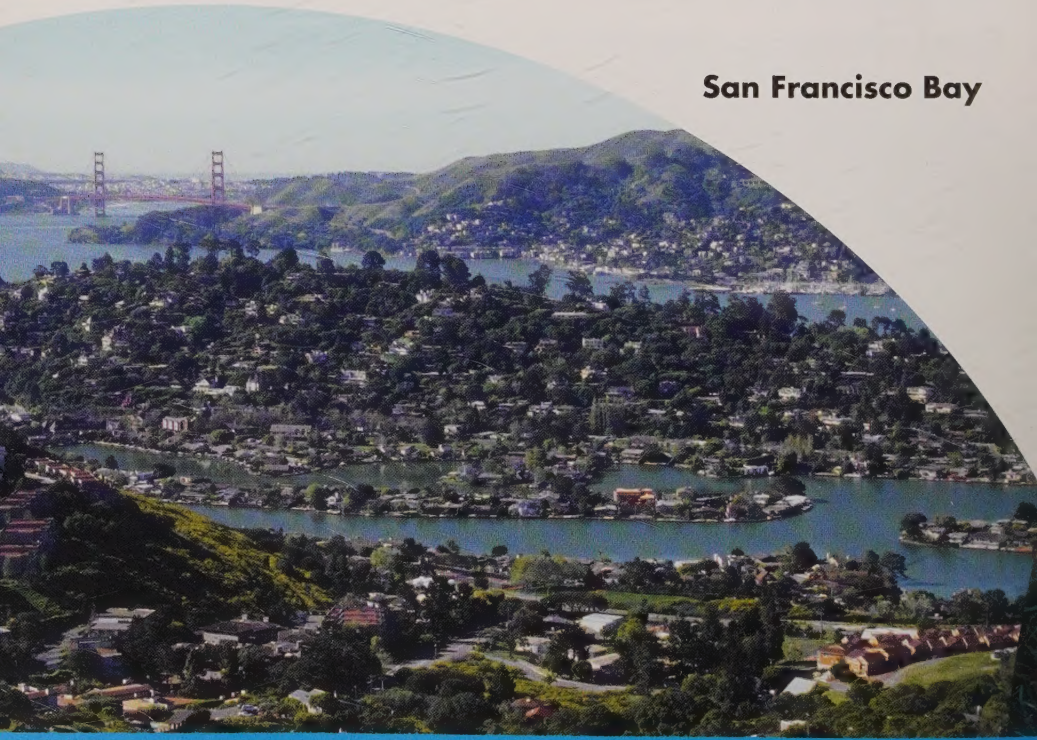
In this book, you will read about animals and plants that live in the San Francisco Bay.



San Francisco Bay

Water is important in California. The Pacific Ocean borders the whole state. There are many rivers and lakes in California.

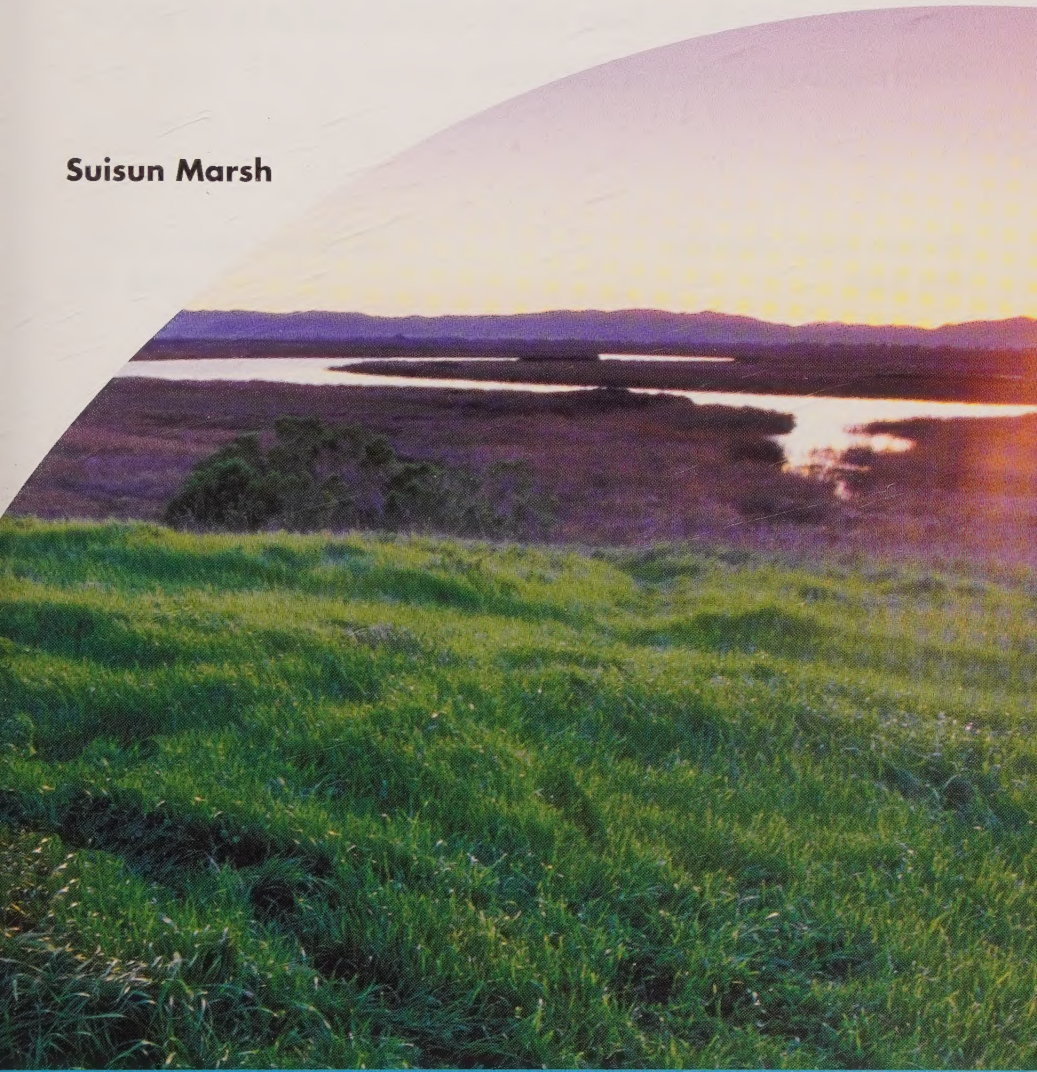
The San Francisco Bay is a body of water in California. The Bay connects the Sacramento River and the San Joaquin River to the Pacific Ocean.



San Francisco Bay

Many people live around the Bay. Plants and animals live in the Bay too.

The Suisun Marsh is in the Bay. It is the largest wetland in California. A wetland is an area of land that has a lot of water in the soil.

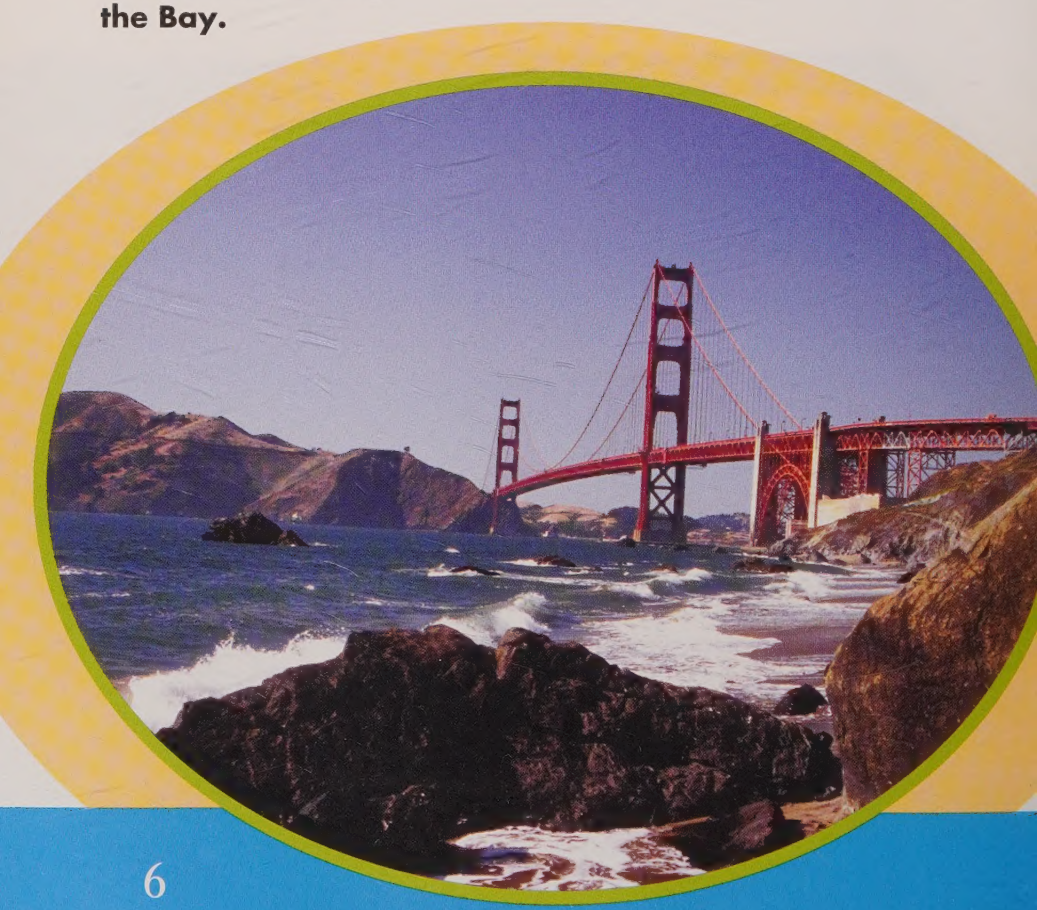


Suisun Marsh

Oceans have salt water. Rivers have fresh water. The Bay is a mixture of salt water and fresh water. The saltiness of the Bay water changes.

Tides are the rise and fall of the ocean. At high tide, the Bay fills with ocean water. At low tide, the Bay has less salty water. There is more fresh water from the river.

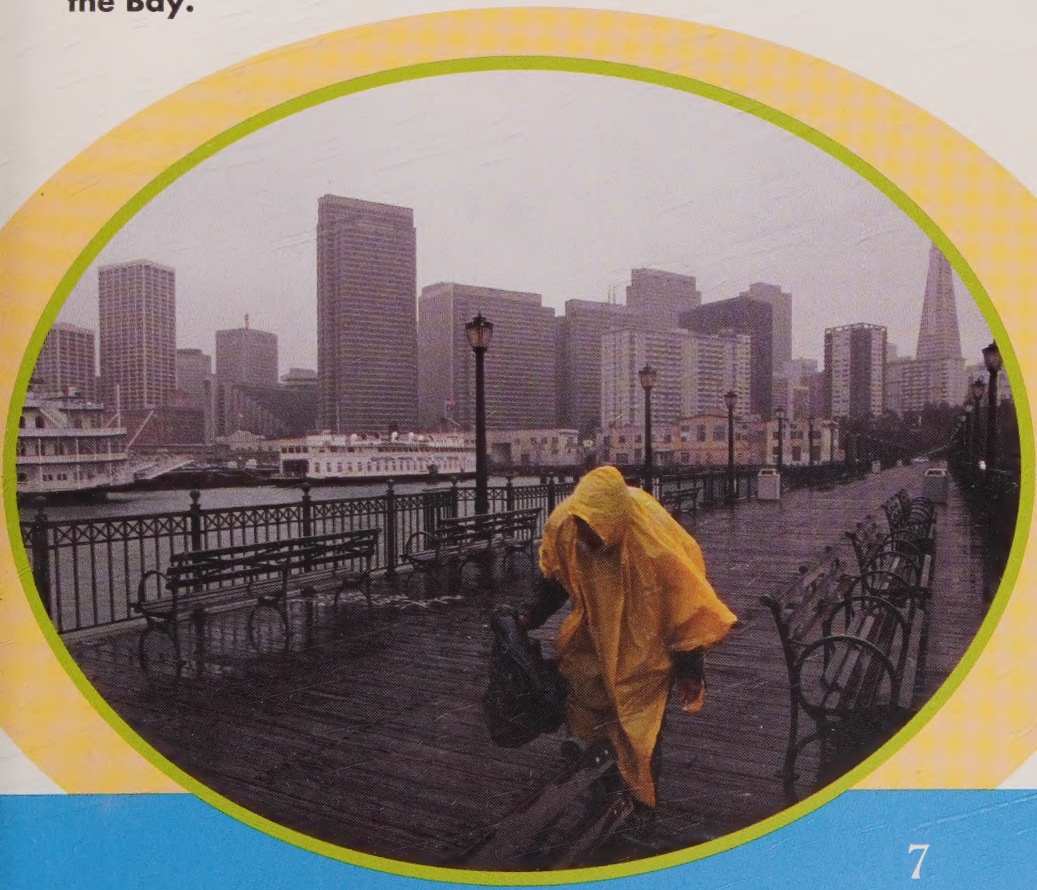
Ocean tides change the Bay.



Weather also changes the saltiness of the Bay. Rain brings fresh water to the Bay. When snow melts in the mountains, more fresh water reaches the Bay.

The amount of fresh water changes with the seasons. In summer it is dry. There is less fresh water and more salt water in the Bay. In winter it is wet. There is more fresh water and less salt water in the Bay.

Rain brings water to the Bay.



Animals in the Bay

The Bay is a special place for animals to live. Many different animals live there.

Some animals live on the muddy bottom of the Bay. Living things attach to the shells of decorator crabs. They hide the crabs from fish that might eat them.

There are lots of fish in the Bay. Salmon live in the ocean most of their lives. But they lay their eggs in fresh water. Some salmon swim through the Bay to the rivers.

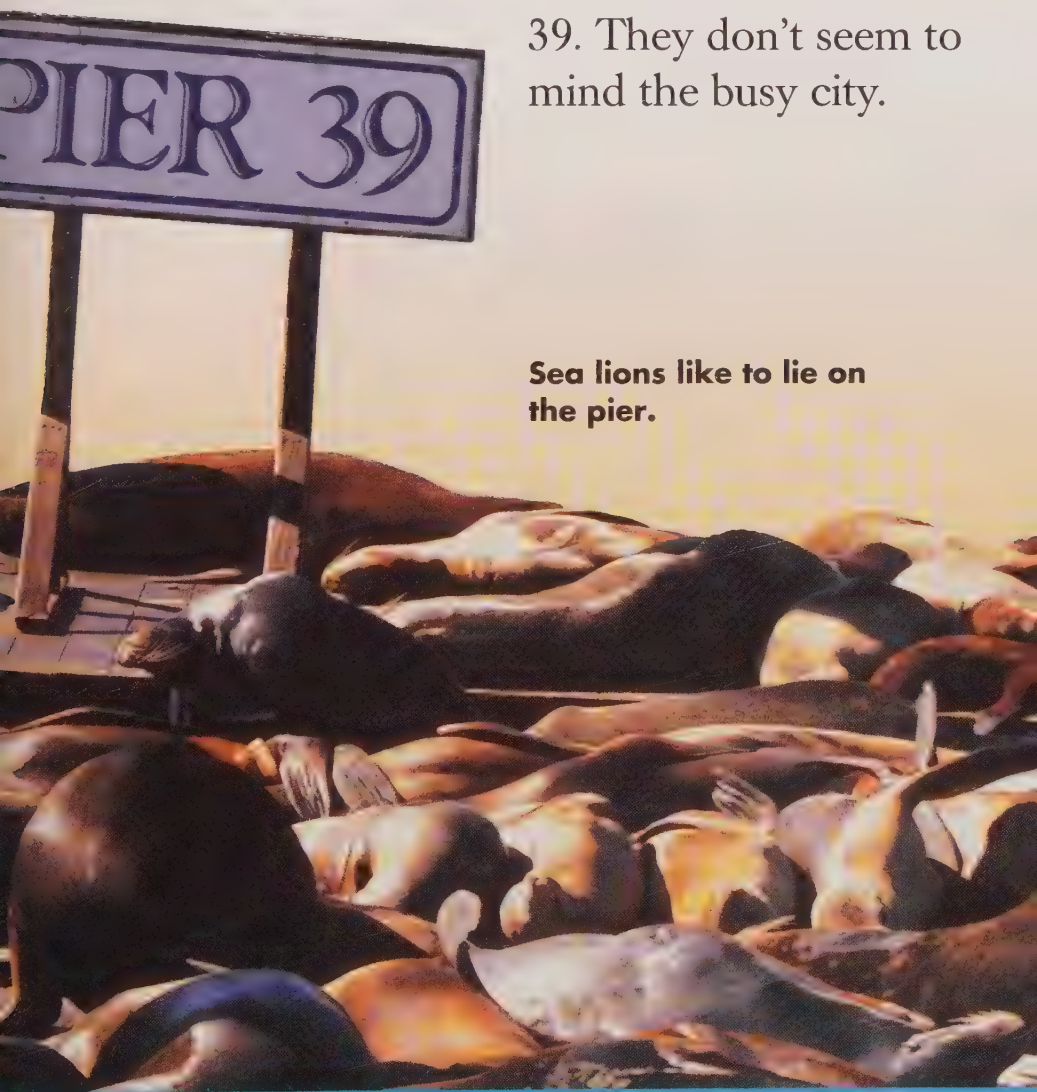
Delta smelt also live in the Bay. They eat zooplankton. Zooplankton are tiny animals. They are too small to see with your eyes.

Birdwatchers love the San Francisco Bay. Thousands of birds live and feed there.

Swans, ducks, and geese use the Bay for food and shelter. Some birds find food in the shallow waters. They eat small fish and animals. The brown pelican flies above deeper water. It dives for food from the air.

A brown pelican lands in the Bay.

Seals and sea lions live in the Bay. Harbor seals live mostly in the north and south parts of the Bay. You might see baby seals in the spring! Harbor seals don't like noise or people. If you see them on an island, stay away. Sea lions sit on the rocks near Pier 39. They don't seem to mind the busy city.



Sea lions like to lie on the pier.

Plants in the Bay

Many different plants live in the San Francisco Bay. Cattails in the marsh can be six feet tall. California poppies grow in dry parts of the marsh.

Algae are tiny plants that float in the water. It's the most common plant in the Bay. The food chain starts with algae.

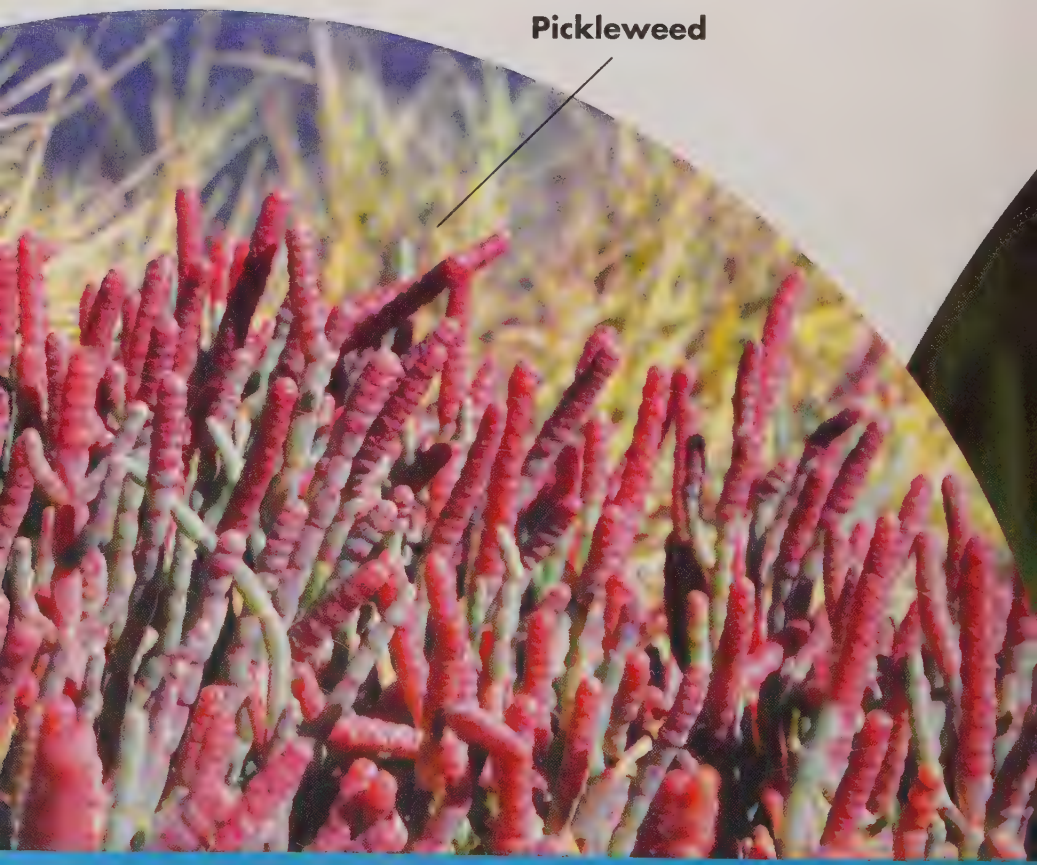
Eelgrass lives covered by water. It grows in underwater fields. Eelgrass grows quickly. It has flowers. Leaves fall off into the mud. The leaves make the mud better for other animals and plants.

Young fish make their home in eelgrass. Snails eat the leaves.

Pickleweed grows close to the ground. Sometimes tides cover it.

Pickleweed can grow very thick. It can also live in salty water. It has flowers that bloom in spring and summer.

Some animals also live in pickleweed. They can hide from hawks in the branches.

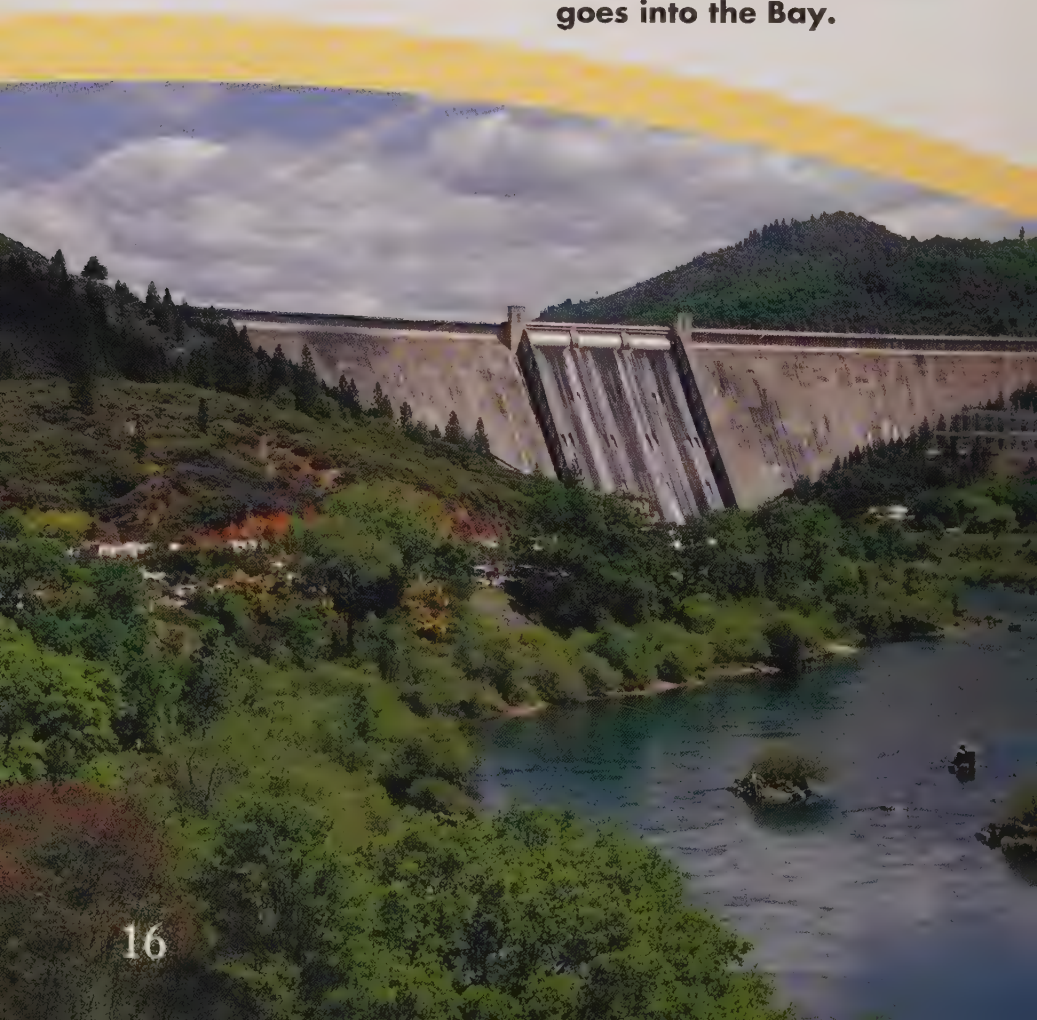


In summer, there might be orange strings on the pickleweed. The strings are another plant called saltmarsh dodder. The thin strings dig their roots into the pickleweed. Soon the pickleweed roots will die.

People and the Bay

San Francisco is a big city. Many people live around the Bay. They ride boats and go fishing in the Bay. People use water from the Bay. They build dams to hold back the water. Big pumps take water from the Bay for drinking. Farmers use water that goes into the Bay for their fields.

This dam is on a river that goes into the Bay.



People change the habitat, or natural place, where animals and plants live. Animals and plants can be hurt by changes in their habitat.

Water from the Bay helps generate electricity.

The salt marsh harvest mouse lives in the San Francisco Bay. It is endangered. This means it could die out. There aren't many of them around.

At high tide the mice hide in bushy plants like pickleweed. There are not enough plants to protect them.

The mice need salty water to live. Cities around the Bay put extra fresh water into the Bay. This hurts the mice.

Salt marsh harvest mouse

Scientists study the Bay. They count the plants. They watch where the animals move. People make plans to keep the Bay healthy. People, plants, and animals all need the San Francisco Bay.

Glossary

endangered in danger of dying out

habitat a place where a plant or animal lives

tides the rise and fall of the ocean

wetland a place that is covered by water at least part of the year

What did you learn?

1. How do animals in the Bay use eelgrass?

2. Where do some salmon lay their eggs?

3. **Writing** in Science You just learned about the San Francisco Bay. Write a short story about a body of water near your home or one you have visited. What kinds of plants and animals live there?

4. **Predict** Look at the story of the mouse on page 18. What might happen to the mouse?

California Science

Genre	Comprehension Skill	Text Features	Science Content
Nonfiction	Predict	• Captions • Labels • Glossary	Food Chains

Scott Foresman Science 1.5

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ISBN 0-328-23486-9
9 780328 234868

P8-CAF-816